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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/664,169	09/16/2003	Steven A. Buhler	D/A2559	3335

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Patent Documentation Center
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Rochester, NY 14644

EXAMINER

VO. HAI

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 03/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/664,169

Applicant(s)

BUHLER ET AL.

Examiner

Hai Vo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 October 2004.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-10 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 16 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1028.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____

Claim Objections

1. Claims 1-10 are objected to because of the following informalities: claim 1, line 4, the word "an" is preferably added before "adhesive" to conform with US patent practice. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3, 9 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Wilson et al (US 6,251,495). Wilson teaches a product comprising a foil layer 14 laminated to a substrate 12 wherein the foil layer is perforated with a plurality of apertures 18 (figure 2). The substrate comprises interstices (column 5, line 35). Likewise, the substrate is porous. Wilson teaches the foil bonded to the substrate by an adhesive and before the adhesive was substantially cured, the apertures were introduced therein (column 8, lines 53-58). Likewise, it is clearly apparent that some apertures at least partially filled with the adhesive in the bonding surface. The aperture has a width of 1/4" (column 8, line 55). The aperture has the diameter small enough to cause a residue of adhesive remained on the bonding surface in accordance with the process disclosed in the Wislson. The aperture extends through the foil layer

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(figure 3). The apertures of the foil layer comprise less than 50% of the bonding surface (figure 2). Accordingly, Wilson anticipates the claimed subject matter.

4. Claims 1-5, and 7-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Grazman et al (US 5,848,510). Grazman teaches a roofing assembly comprising an insulating layer 4 and a base sheet 2 wherein the base sheet is perforated with a plurality of apertures 3 designed to receive an adhesive to bond the base sheet to the insulating layer (figure 4). The insulating layer is a foam glass which is a porous material (column 3, line 24). The aperture has a width from 1/8 to 1/3 inch (column 2, lines 50-55). The base sheet has a thickness of from 1.5 to 3 mm (column 3, lines 34-35). The apertures run from the top surface to the bottom surface of the base sheet (figure 4). Likewise, the apertures depth is about 1.5 to 3 mm, within the claimed range. The base sheet has one substrate groove having a groove width and a groove depth on the bonding surface (figure 2b and 2c). Since Grazman uses the same technique to bond the perforated base sheet to the porous substrate as Applicants, i.e., applying the adhesive layer on the top of the base sheet and adhering the insulating layer to the base sheet, it is not seen that there could not have been a residue of adhesive on the bonding surface. The apertures of the base sheet comprise less than 50% of the bonding surface (figure 3). Accordingly, Grazman anticipates the claimed subject matter.

Claim Rejections - 35 USC § 103

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5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wilson et al (US 6,251,495) as applied to claim 1 above, and further in view of Simpson et al (US 4,936,938). Wilson does not specifically disclose the depth of the apertures or the thickness of the foil layer. Therefore, it is necessary and thus obvious for the skilled artisan to look to the prior art for the suitable thickness of the foil layer for use in the roof assembly. Simpson teaches a laminated roofing material comprising an aluminum foil having a thickness of 0.0007" (column 1, lines 60-61). That is, the combination of Wilson and Simpson arrives at the assembly wherein the apertures have a depth at least 0.0007", meeting the range set out in the claims. Therefore, in an absence of unexpected results, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the foil layer having a thickness as taught by Simpson motivated by the desire to provide lower energy radiant transfer of the roofing assembly.
7. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Grazman et al (US 5,848,510) as applied to claim 1 above, and further in view of Paquette (US 4,937,99). Grazman does not specifically disclose

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the base sheet comprising one substrate groove extending between two substrate apertures. Paquette discloses a roof assembly comprising a base sheet comprising one substrate groove extending between two substrate apertures as shown in figure 1. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the base sheet having one substrate groove extending between two substrate apertures motivated by the desire to increase adhesion of the base sheet to the insulating layer.

8. Three documents listed on the European Search report are considered to be pertinent to Applicants' disclosure. The examiner disagrees since none of the cited references discloses or suggests an adhesive in the bonding surface.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai Vo whose telephone number is (571) 272-1485. The examiner can normally be reached on M,T,Th, F, 7:00-4:30 and on alternating Wednesdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status

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information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HV

Hai Vo
Tech Center 17a